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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,520	12/31/2003	Guido Canzona	024.0043 (03-0476)	9248
29906	7590	12/01/2004	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C. 7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			JENKINS, DANIEL J	
			ART UNIT	PAPER NUMBER

1742

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/750,520

Applicant(s)

CANZONA, GUIDO

Examiner

Daniel J. Jenkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/31/03</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bradt.

Bradt discloses a method of making a consolidated powder article comprising:

providing a preform formed at a consolidation pressure (col. 3, lines 1-3);

encompassing said preform with a flowable pressure transmitting medium (col. 4, lines 5-10);

compacting said preform by applying pressure and temperature to said transmitting medium to form a consolidated powder article (col. 4, lines 13-21).

The Examiner notes that the claim limitation to a "first temperature" reads upon room compaction.

The Examiner notes that the preamble limitation to "nanophase" does not provide weight to the body of the claim, and is thus not considered a positive limitation.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeks, III et al. 6,630,008 (Meeks '008).

Meeks '008 discloses the invention substantially as claimed. Meeks '008 discloses a method of forming a consolidated powder article comprising:

providing a nanophase aluminum powder (col. 5, lines 1-9);

forming a compact of said nanophse aluminum powder at a temperature and pressure (col. 2, lines 29-31);

positioning said compact in a flowable pressure transmitting medium (col. 3, line 65 to col. 4, line 18);

heating and pressurizing said medium to compact and sinter said preform forming a consolidated powder article (col. 4, lines 3-18).

Meeks '008 discloses that when aluminum powders are used, temperature of less than 600oC can be used in the heating step (col. 4, lines 12-18), one of ordinary skill determining specific temperatures based on the selection of the specific initial powder composition and the pressure at which the consolidation takes place.

Meeks' 008 is silent as to encompassing the preform in a foil, but it is common knowledge in the prior art to cover performs with foil in order to reduce contamination of the formed article by the medium.

5. Claims 13-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeks, III et al. 6,630,008 (Meeks '008).

Meeks '008 discloses the invention substantially as claimed (see paragraph 4 above). However, Meeks '008 does not disclose wherein the compact is double compacted and double heated.

James et al. teaches that it is known to double press and double heat a powder body at different pressure and temperature ranges in the same field of endeavor for the purpose of increasing density of the consolidated body (2, lines 61-64).

It would have been obvious to one having ordinary skill in the art at the time of the invention to double press and double heat the compact of Meeks '008 in order to increase density of the formed powder article.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.


Claim 13 contains the language "encompassing said nanophase metal powder" which renders the claim indefinite. In particular, it appears from Applicant's disclosure that this step of the process is intended to mean a "mass" of nanophase metal powder or a "preform" of nanophase metal powder, no loose powder which would be the literal meaning of the claim language.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 571-272-1242. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1242. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J. Jenkins  
Primary Examiner  
Art Unit 1742

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